

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicants: Helge LINDSTROM et al. Conf.: Not assigned
Serial No.: NEW Art Unit: Not assigned
Filed: December 3, 2001 Examiner: Not assigned
For: MULTI-LAYER PRESSURE PIPE OF A PLASTIC MATERIAL

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, DC 20231

December 3, 2001

Sir:

Prior to examination, please amend the above-identified application as follows:

In the Claims:

Please **rewrite claims 1-9** as follows:

1. (Amended) A multi-layer pressure pipe (20) of a plastic material, containing fiber-reinforced layers, wherein the multi-layer pressure pipe (20) is formed by using as the extruder a cone extruder (10) which cross-orientes the reinforcement fibers in the extruded material in the successive layers (21, 22, 23, 24), and wherein the material extruded is a polyolefin which contains long-fiber reinforcements.

2. (Amended) A multi-layer pressure pipe (20) according to claim 1, wherein the melt flow rate (MFR₂) (230°C, 2.16 kg) of the polyolefin is greater than 1, and preferably from about 10-18g/10 min.

3. (Amended) A multi-layer pressure pipe (20) according to claim 1, wherein the pressure pipe (20) is a pressure pipe, the pressure category of which is PN 16 or higher according to standard ISO 4065.

4. (Amended) A multi-layer pressure pipe (20) according to claim 1, wherein the polyolefin is polypropylene, and wherein the long-fiber reinforcements are glass fibers.

5. (Amended) A multi-layer pressure pipe (20) according to claim 1, wherein the length of the long-fiber reinforcements is at least 30 times the fiber diameter.

6. (Amended) A multi-layer pressure pipe (20) according to wherein the length of the long-fiber reinforcements in the pressure pipe is on the order of magnitude of from about 0.5-50 mm, preferably from about 1-20 mm, and most preferably from about 2-15 mm.

7. (Amended) A multi-layer pressure pipe (20) according to claim 1, wherein the amount of long-fiber reinforcements ranges from about 5 to 95% by weight, and preferably from about 25 to 75% by weight.

8. (Amended) A multi-layer pressure pipe (20) according to claim 1, wherein the pressure pipe (20) has a double-layer structure.

9. (Amended) A multi-layer pressure pipe (20) according to claim 1, wherein the pressure pipe (20) has a four-layer structure.

REMARKS

The purpose of this Preliminary Amendment is to eliminate multiply dependent claims and the fees associated therewith and to otherwise place the claims in U.S. format.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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Attachment: Version with markings to changes made

2835-105P

ADM:RG:rk

VERSION WITH MARKINGS TO SHOW WITH CHANGES MADE

In the Claims:

Please **rewrite claims 1-9** as follows:

1. (Amended) A multi-layer pressure pipe (20) of a plastic material, containing [fiber reinforced] fiber-reinforced layers, [characterized in that] wherein the multi-layer pressure pipe (20) is formed by using as the extruder a cone extruder (10) which cross-orientes the reinforcement fibers in the extruded material in the successive layers (21, 22, 23, 24), and [that] wherein the material extruded is a polyolefin which contains long-fiber reinforcements.

2. (Amended) A multi-layer pressure pipe (20) according to [Claim] claim 1, [characterized in that] wherein the melt flow rate (MFR₂) (230°C, 2.16 kg) of the polyolefin is greater than 1, and preferably from about 10-18g/10 min.

3. (Amended) A multi-layer pressure pipe (20) according to [Claim 1 or 2, characterized in that] claim 1, wherein the pressure pipe (20) is a pressure pipe, the pressure category of which is PN 16 or higher according to standard ISO 4065.

4. (Amended) A multi-layer pressure pipe (20) according to [any one of Claims 1-3, characterized in that] claim 1, wherein the polyolefin is polypropylene, and [that] wherein the long-fiber reinforcements are glass fibers.

5. (Amended) A multi-layer pressure pipe (20) according to [any one of Claims 1-4, characterized in that] claim 1, wherein the length of the long-fiber reinforcements is at least 30 times the fiber diameter.

6. (Amended) A multi-layer pressure pipe (20) according to [any one of Claims 1-5, characterized in that] wherein the length of the long-fiber reinforcements in the pressure pipe is [in] on the order of magnitude of from about 0.5-50 mm, preferably from about 1-20 mm, and most preferably from about 2-15 mm.

7. (Amended) A multi-layer pressure pipe (20) according to [any one of Claims 1-6, characterized in that] claim 1, wherein the amount of long-fiber reinforcements ranges from about 5 to 95% by weight, and preferably from about 25 to 75% by weight.

8. (Amended) A multi-layer pressure pipe (20) according to [any one of Claims 1-7, characterized in that] claim 1, wherein the pressure pipe (20) has a double-layer structure.

9. (Amended) A multi-layer pressure pipe (20) according to [any one of Claims 1-7, characterized in that] claim 1, wherein the pressure pipe (20) has a four-layer structure.